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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,335	02/20/2004	Christopher Erwin	PA2621US	6897
22830	7590	11/02/2005	EXAMINER	
CARR & FERRELL LLP 2200 GENG ROAD PALO ALTO, CA 94303			FOX, BRYAN J	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,335

Applicant(s)

ERWIN ET AL.

Examiner

Bryan J. Fox

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1 and 5 are objected to because of the following informalities: the limitation "TCB cabinet" should be better defined to clearly and distinctly point out the intended subject matter. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Besson (US006360106B1) in view of Shepherd et al (US006804540B1).

Regarding **claim 1**, Besson discloses a base station that contains four transceivers TRX1 to TRX4, wherein the transceivers TRX1 to TRX3 are each connected permanently to antennas A and an additional transceiver TRX4 can be selectively switched to one of the three antennas A. Each of the antennas realize a

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sector within the cell that is covered by the base station (see column 4, line 65 – column 5, line 6 and figure 2). The controller SE distributes the communication connections which are supplied by the base station to the transceivers, by means of a combining unit K (see column 5, lines 7-21), which reads on the claimed, “combiner card having first and second input port pairs,” and, “connecting the first input port pair of the combiner card to second sector multicouplers; connecting the second input port pair of the combiner card to second sector multicouplers; and wherein backplane circuitry... directs combined uplink signals from the second input port pair to the second designated set of transceiver slots.” Besson fails to disclose the use of TCB cabinets.

Regarding **claim 2**, the combination of Besson and Shepherd et al fails to expressly disclose the first designated set of transceiver slots is the odd-numbered transceiver slots and the second designated set of transceiver slots in the even-numbered transceiver slots.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the combination of Besson and Shepherd et al such that the first designated set of transceiver slots is the odd-numbered transceiver slots and the second designated set of transceiver slots is the even-numbered transceiver slots. The applicant has not disclosed that having the first designated set of transceiver slots is the odd-numbered transceiver slots and the second designated set of transceiver slots is the even-numbered transceiver slots provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the applicant's invention to perform equally well

without dividing the slots by even and odd numbers because the end result of dividing the transceivers would be the same.

In a similar field of endeavor, Shepherd et al disclose that each base station may include a transceiver cabinet, which is connected to an autotuned combiner cabinet and an Antenna Near Part Cabinet, which is connected to an antenna assembly (see column 4, lines 60-67), which reads on the claimed, "TCB cabinet corresponding to a second sector," and, "placing a set of second sector transceivers in a first designated set of transceiver slots of the TCB cabinet," and, "placing a set of second designated set of transceiver slots of the TCB cabinet."

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Besson with Shepherd et al to include the above transceiver cabinet for storing the transceivers in order to mount the transceivers.

Regarding **claim 3**, the combination of Besson and Shepherd et al discloses that each of transceivers TRX1 to TRX3 are each connected permanently to antennas A and an additional transceiver TRX4 can be selectively switched to one of the three antennas A. Each of the antennas realize a sector within the cell that is covered by the base station (see Besson column 4, line 65 – column 5, line 6 and figure 2), which reads on the claimed, "establishing a transmission path between the set of first sector transceivers and the first sector antenna."

Regarding **claim 4**, the combination of Besson and Shepherd et al discloses more than one transceiver may be connected to an antenna (see Besson column 4, line

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65 – column 5, line 6 and figure 2), which reads on the claimed, “the set of first sector transceivers comprises a plurality of transceivers.”

Regarding **claim 5**, Besson discloses a base station that contains four transceivers TRX1 to TRX4, wherein the transceivers TRX1 to TRX3 are each connected permanently to antennas A and an additional transceiver TRX4 can be selectively switched to one of the three antennas A. Each of the antennas realize a sector within the cell that is covered by the base station (see column 4, line 65 – column 5, line 6 and figure 2). The controller SE distributes the communication connections which are supplied by the base station to the transceivers, by means of a combining unit K (see column 5, lines 7-21), which reads on the claimed, “combiner card having first and second input port pairs,” and, “connection between the first input port pair of the combiner card to first sector multicouplers; a connection between the second input port pair of the combiner card and first sector multicouplers; and backplane circuitry...configured to route combined uplink signals from the first input port pair to the first designated set of transceiver slots and to route combined uplink signals from the second input pair to the second designated set of transceiver slots.” Besson fails to disclose the use of TCB cabinets.

In a similar field of endeavor, Shepherd et al disclose that each base station may include a transceiver cabinet, which is connected to an autotuned combiner cabinet and an Antenna Near Part Cabinet, which is connected to an antenna assembly (see column 4, lines 60-67), which reads on the claimed, “TCB cabinet having a plurality of transceiver slots; a set of first sector transceivers in a first designated set of transceiver

slots of the TCB cabinet; a set of second sector transceivers located in a second designated set of transceiver slots of the TCB cabinet.”

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Besson with Shepherd et al to include the above transceiver cabinet for storing the transceivers in order to mount the transceivers.

Regarding **claim 6**, the combination of Besson and Shepherd et al fails to expressly disclose the first designated set of transceiver slots is the odd-numbered transceiver slots and the second designated set of transceiver slots in the even-numbered transceiver slots.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the combination of Besson and Shepherd et al such that the first designated set of transceiver slots is the odd-numbered transceiver slots and the second designated set of transceiver slots is the even-numbered transceiver slots. The applicant has not disclosed that having the first designated set of transceiver slots is the odd-numbered transceiver slots and the second designated set of transceiver slots is the even-numbered transceiver slots provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the applicant's invention to perform equally well without dividing the slots by even and odd numbers because the end result of dividing the transceivers would be the same.

Regarding **claim 7**, the combination of Besson and Shepherd et al discloses that each of transceivers TRX1 to TRX3 are each connected permanently to antennas A and

an additional transceiver TRX4 can be selectively switched to one of the three antennas A. Each of the antennas realize a sector within the cell that is covered by the base station (see Besson column 4, line 65 – column 5, line 6 and figure 2), which reads on the claimed, “establishing a transmission path between the set of first sector transceivers and the first sector antenna.”

Regarding **claim 8**, Besson discloses an additional transceiver TRX4 that can be selectively switched to one of the three antennas A. The controller SE distributes the communication connections which are supplied by the base station to the transceivers, by means of a combining unit K (see column 5, lines 7-21). Besson fails to disclose fails to disclose an ANPC cabinet.

In a similar field of endeavor, Shepherd et al disclose an ANPC cabinet (see column 4, lines 60-67).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Besson with Shepherd et al to include the combiner unit in the above ANPC cabinet in order to reduce circuitry.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jantti et al (US005752161A) disclose a method and apparatus for replacing a failed channel unit of a sectored base station, in a cellular radio system, with an additional channel unit.

Posti (US006058317A) discloses a base station having at least two radio set units located at a distance from a central processing unit and a method of using the same.

Luders (US006311074B1) discloses a base station and method for covering a cell of a cellular mobile radiotelephone system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J. Fox whose telephone number is (571) 272-7908. The examiner can normally be reached on Monday through Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bryan Fox
October 25, 2005

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